

1. A modem comprising:

a base unit for transmitting a data signal having substantially no nonlinear distortion; and

a communication card which receives the data signal from the base unit over a wireless medium, and which performs echo canceling on the data signal.

2. The modem of claim 1, wherein the base unit is in communication with a telephone line and receives an original signal from the telephone line, the base unit generating an RF modulated signal based on the original signal.

3. The modem of claim 2, wherein the base unit comprises:

a transmitter for transmitting the data signal; and circuitry which receives the original signal from the telephone line and which generates the data signal from the original signal by maintaining a peak voltage excursion of combined original and echo signals within a linear amplification region of the transmitter.

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4. The modem of claim 3, wherein the circuitry
comprises an automatic gain control circuit.

5 5. The modem of claim 1, wherein the data signal is
transmitted using digital frequency modulation.

6. The modem of claim 1, wherein the data signal is
transmitted using analog frequency modulation.

10 7. The modem of claim 1, wherein the base unit
transmits the data signal over a frequency channel of the
wireless medium, the base unit comprising circuitry which
detects a transmission error in the data signal and which
switches the frequency channel in response to the detected
15 transmission error.

20 8. The modem of claim 7, wherein the frequency
channel comprises a radio frequency (RF) channel and the
transmission error comprises an error rate measurement in
the data signal.

9. The modem of claim 1, wherein the communication card includes a switch for selecting a type of medium over which to transmit and receive the data signal.

5 ~~10.~~ A modem comprising:

a base unit; and

a communication card for transmitting data signals to, and receiving data signals from, the base unit, the communication card including a switch for selecting a type of medium over which to transmit and receive the data signals.

11. The modem of claim 10, wherein the type of medium comprises a wired medium.

12. The modem of claim 10, wherein the type of medium comprises a wireless medium.

13. The modem of claim 10, further comprising circuitry which triggers the switch in response to detecting a wired medium interface to the modem.

14. The modem of claim 13, wherein the circuitry comprises a line presence indicator; and wherein the switch is triggered to operate the modem in wired mode when the line presence indicator detects the wired medium and the switch is triggered to operate the modem in wireless mode when the line presence indicator does not detect the wired medium.

15. A modem comprising:
a base unit which transmits a data signal to a modem card over a frequency channel of a wireless medium, the base unit including circuitry which detects a transmission error in the data signal and which switches the frequency channel in response to the detected transmission error.

16. The modem of claim 15, wherein the frequency channel comprises a radio frequency (RF) channel and the transmission error comprises an error rate measurement in the data signal.

17. The modem of claim 16, wherein the error rate measurement is detected based on a parity bit in the data

signal.

18. The modem of claim 17, wherein the parity bit comprises a least significant bit taken from a sample of
5 the data signal.

19. A modem comprising:

10 a base unit which interfaces to a telephone line, the base unit including a hook switch circuit that seizes the telephone line by drawing direct current from a central office battery to provide an indication that the telephone line is ready to transmit data signals; and
a communication card for transmitting data signals to, and receiving data signals from, the telephone line
15 via the base unit.

20. The modem of claim 19, wherein the communication card comprises a switch for selecting a type of medium over which to exchange the data signals with the base
20 unit.

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21. The modem of claim 20, wherein the type of
medium comprises a wired medium.

22. The modem of claim 20, wherein the type of
5 medium comprises a wireless medium.

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